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SUMMARIES OF RESEARCH STUDIES IN AGRICULTURAL EDUCATION FOR THE PACIFIC REGION, 1965.

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TWENTY DOCTORAL DISSERTATIONS, STAFF STUDIES, AND MASTERS' THESES IN AGRICULTURAL EDUCATION ARE REPORTED IN THE FOLLOWING AREAS -- AGRICULTURAL COLLEGES, CIVIL DEFENSE, COMMUNITY COLLEGES, CURRICULUM, EDUCATIONAL TELEVISION, DROPOUTS, EXTENSION EDUCATION, EDUCATIONAL PROGRAMS IN FOREIGN COUNTRIES, JUNIOR COLLEGES, LAND LABORATORIES, OCCUPATIONAL FOLLOWUP, OFF-FARM AGRICULTURAL OCCUPATIONS, PERSONNEL RECRUITMENT, PROGRAM PLANNING, TECHNICAL EDUCATION, AND YOUTH CLUBS. THE STUDIES ARE GROUPED BY STATES. THE PURPOSE, METHODS, AND FINDINGS OF EACH STUDY ARE SUMMARIZED. (JM)

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SUMMARIES OF RESEARCH STUDIES IN AGRICULTURAL EDUCATION

for the

P A C I F I C R E G I O N, 1965

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++FOREWORD++

This is the second annual publication of summaries of studies for the Pacific Region. The reader should be cognizant that not all studies included meet criteria held for a national publication which is planned for vocational education. However, all reported studies from the respective states in the Pacific Region are included for information and as a reference source.

The cooperation of participating departments in providing summaries for this compilation is appreciated.

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ARIZONA

BRECHAN, WILLIAM M. An Analysis of the Understanding of the Agricultural Extension Service by Selected Rural People in Coconino County, Arizona. Problem, M. Agr. Ed., 1965, University of Arizona, 52 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. --To determine if rural people in Coconino County, Arizona understand the function, organization and services of the cooperative extension service, to find what services provided by the cooperative extension service are desired most and which have been used most by the participants of this study, and to learn the opinions of the participants on which work areas should receive the most emphasis in future programs.

Method. --Data for this study were secured by personal interviews with the head of each of the forty-three families who own a farm or ranch in Coconino County, Arizona, who derive a major portion of their income from their farms or ranches and who live in Coconino County all year.

Findings. --It was found that the participants of this study were well acquainted with the Agricultural Agent and the location and work hours of the County Extension Office.

The study showed that participants understood the availability of the many services offered by their local County Extension

Office and are making good use of these services.

The data indicated that most of the participants did not clearly understand the financing of the County Extension Office, the employing of the county staff and did not know who directs the work programs of the county office.

The 4-H Club program was well understood and accepted. Ninety-one percent of the participants stated that the 4-H Club program was of major importance.

It was found that the county staff has been placing their emphasis in the areas which were selected by the group as being the most important work areas. The participants indicated that they would appreciate more frequent farm and home visits from the county extension staff.

WAGLEY, LEON A. Educational Requirements for Off-the-Farm Agricultural Occupations in Yuma County, Arizona. Dissertation, Ed. D., 1964, University of Arizona, 119 p. Library, University of Arizona, Tucson.

Purpose. --To analyze the educational requirements for off-the-farm agricultural occupations in Yuma County, Arizona. The specific purposes were: (1) to determine the essential skills and knowledges needed by individuals for both initial employment and upgrading on the job in the following competency areas: (a) plant science; (b) animal science; (c) agricultural business management and marketing; (d) agricultural

mechanization; and (e) supporting competencies; and (2) to determine the number of persons employed in these off-the farm agricultural occupations in which agricultural education is important.

Method. --Data regarding the off-the-farm agricultural occupations were secured by the interview method from 121 establishments providing some kind of agricultural service to farm operators.

The findings were summarized for the six levels of employment identified. These six levels were: (1) professional, (2) technical, (3) supervisory, (4) sales, (5) skilled and, (6) semi-skilled.

Finding. --The most common types of businesses employing agriculturally trained persons are those engaged in sales and service. Over sixty-seven percent of the total number of employees in the businesses surveyed were in this category. The next largest group was engaged in providing services. This accounted for approximately twenty-five percent of the total.

Slightly over fourteen percent of the 5,427 persons employed in the 121 businesses studied were estimated by the employers to need specific training in agriculture.

One hundred and fifty new agriculturally trained employees will be needed in the Yuma area during the next five years to fill anticipated new positions in these companies. All of the companies planned immediate and/or long-time increases in the number of employees.

A number of broad areas of training were indicated by the employers as having considerable importance in providing trained people for service in off-the-farm agricultural occupations. Training in agricultural mechanics and plant science was of major importance while training in animal science was of minor importance in Yuma County. Educational needs in salesmanship and customer relations were rated higher than agricultural training needs for employees of these businesses.

The general reaction of employers to possible training programs for employees in off-the-farm agricultural occupations was a positive one. Eighty percent of the employers said they would be glad to work with school personnel in planning the curriculum for prospective employees, and in the conducting of the training program. Interest was also expressed in the use of training programs to up-grade the performance of present employees.

ZURBRICK, PHILLIP RAYMOND. The Academic and Technical Education Needs of Persons Preparing to Teach Agriculture in the Junior College. Problem, M. Agr. Ed., 1965, University of Arizona. 81 pages. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. --To determine the educational preparation of those persons presently teaching agriculture on the junior college level in the eleven western states and their opinions as to the educational preparation needed by persons preparing to teach agriculture in junior colleges.

The sub-problems were to determine state certification requirements for each of the eleven western states, the types of programs offered in agriculture at the junior college level, the teaching load, and other responsibilities of teachers presently teaching agriculture on the junior college level in those states.

Method. --Junior colleges offering agriculture in the eleven western states were located, and names of agriculture teachers were obtained from annual catalogues provided by the junior colleges. Questionnaires were sent to each full time instructor listed in those catalogues as teaching courses in agriculture.

Findings. --There were 34 junior colleges offerings one or more agricultural courses in the eleven western states. An additional 32 junior colleges listed agriculture in their catalogues but offered no actual agricultural courses. California had the largest number of junior colleges offering agriculture. The number of agricultural courses offered in a single junior college varied from a high of 74 courses to a low of 4 courses.

The average number of full-time agricultural teachers for all schools was 2.68. A total of 98.57 per cent of the teachers held a Bachelor of Science degree and 84.29 per cent also held a master's degree.

The largest, single major field of study of the agricultural teachers was agricultural education, followed by animal science. The largest number of teachers of agriculture taught in the area of animal science, followed by agronomy and by soils and fertilizers. The primary duty of junior college agricultural teachers was teaching. Very few of the teachers reported responsibility for conducting research. The largest number of teachers in the junior college taught 4 courses per term, or semester, with an average hour, or credit load, of 15 hours per week. Over 80 per cent of the teachers had teaching experience prior

to teaching in the junior college, with over 65 per cent having had experience teaching vocational agriculture.

A total of 84.75 per cent of the teachers felt that some type of a master's degree was necessary to be an effective junior college teacher. All of the teachers felt that farm experience was either necessary or desirable. Over 95 per cent felt that student teaching and methods of teaching were necessary or desirable.

Four of the eleven western states had published, statewide certification requirements for junior college teachers. They were Arizona, California, Oregon, and Washington.

AHMAD, NAZIRUDDIN. Guidelines and Procedures for Developing Extension Program in East Pakistan. Master's report, M. Ag. Ed., 1965, University of Arizona, 127 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. --To identify guidelines and procedures for developing extension programs in East Pakistan and to develop a handbook with selected guidelines for application in East Pakistan.

Method. --Twenty-eight guidelines were identified and assembled through library research which were found to be generally accepted and used in developing county extension

programs in the United States. It was felt that while these 28 guidelines are effective in the United States, some of them may not be applicable in East Pakistan because of the cultural differences of the two countries. After careful consideration of the 28 guidelines, 15 guidelines were selected as most applicable to East Pakistan and were included in an opinionaire which was sent to professional extension personnel in East Pakistan to obtain opinons as to their value as guides for preparing extension programs in East Pakistan.

Findings. --Useable questionnaires were received from eleven of the 27 professional extension personnel in East Pakistan who were asked to cooperate in the study. Seven of the guidelines were supported 100 percent, two of them were supported 90.91 percent and another two supported by 80.81 percent of the respondents. A handbook was prepared using the 11 guidelines finally selected for planning and preparing local extension programs in East Pakistan.

The guidelines included are as follows:

1. The main purpose of extension education is to permanently change selected elements of rural life such as increased crop yield, farm income, rural leadership, land use, etc.

2. People themselves are best acquainted with their own needs and interests. A program based on decisions made by the people and the extension staff is the best assurance that it is geared to the conditions and desires of the people.

3. Extension accomplishments are greater when local people participate in the initiation, planning, action and evaluation phases of the program.

4. To strive toward common goals, people must have a body of common knowledge and ideas.

5. Effective extension education is planned -- it does not just happen. Other things being equal, a staff member's effectiveness is directly related to careful planning.

6. The best plans are written which indicate specific action to be taken, by whom, when and where, and what accomplishments are expected.

7. Extension education is effective if it is based on existing conditions (local, regional, national).
8. Program action is the "heart" of the extension education process. It is here that people learn improved skills, gain knowledge, and are led to change their attitudes.
9. You cannot help people permanently by doing for them what they can and should do for themselves; therefore, the primary objective of extension work is to help people to help themselves.
10. The most effective local volunteer leader are those who have earned the confidence and respect of others by their efforts on behalf of local people.
11. The effectiveness of the extension program over a period of time is enhanced with the provision for periodic evaluation within the program plan.

BARON, LLOYD C. An Evaluation of Local Educational Extension Television Programs by Rural People and Agricultural Extension Agents in the Metropolitan Area of Portland, Oregon. Problem, M. Agr. Ed., 1965, University of Arizona, 73 pg. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. --To determine the following about rural people and the agricultural extension television programs in the metropolitan area of Portland, Oregon: (1) the agricultural subject matter preferred, (2) the style of television presentation preferred, (3) the day and hour preferred for viewing, (4) the extent to which the information presented is used, (5) the value of publicizing television programs, (6) whether people would like more or less programs.

Methods. --Data for this study were collected with the aid of two questionnaires. One questionnaire was filled in by 311 rural people who attended one of six extension educational meetings held during the month of February, 1965 in the metropolitan area of Portland, Oregon. The second was completed by sixteen agricultural extension agents in the metropolitan area of Portland, Oregon that participate in producing these programs regularly.

Data were collected in five areas: (1) background information related to the study, (2) television viewing habits, (3) television program preferences, (4) use made of program information, and (5) preferences concerning future programs.

Findings. --Forty percent of the rural people who participated in this study watch agricultural extension television programs at least occasionally. Forty-one percent of the respondents turn on their television sets especially to receive agricultural extension programs. Rural people prefer programs dealing with horticulture, home grounds, and conservation. Thirty-seven percent of the people wanted more agricultural extension television programs and eighty-eight percent indicated they would watch the programs more often if they were better publicized. Thirty-five percent of the people had no preference as to the day of the week extension programs were shown and thirty percent preferred Saturday or Sunday. Forty-three percent would like the programs after 7:00 P.M. and noon was preferred by twenty-one percent.

Sixty-two percent of the respondents viewing the programs made some use of the information and over half of them share the information with neighbors. Ninety-eight

percent of those who used information from the programs reported good results. Over half of the respondents said they would like the opportunity to suggest topics for future agricultural extension television programs.

In general the opinions of the extension agents relative to people's preference paralleled the expressed preferences of the people, with a few minor exceptions.

JONES, KEITH G. Factors Involved in the Recruitment and Length of Service of Selected 4-H Leaders in Pinal County. Non-thesis study, 1965, University of Arizona. 59 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. --To determine if there were significant differences between long and short term 4-H leaders.

Method. --Thirty-one long-term leaders and thirty-one short-term leaders were interviewed. Long-term leaders were those with three years or more of service as 4-H leaders. This was the total number of such leaders in the county at the time the interviews were conducted. The most recent thirty-one leaders to drop out with one year or less service, made up the short-term group. The chi-square test was used to help interpret the data.

Findings and Interpretations. --There were significant differences between the long-term and short-term leaders for ten of the factors considered: (1) Farmers serving as 4-H leaders tend to be long-term leaders, (2) leaders in semi-skilled occupations tend to be short-term leaders, (3) leaders who do not have children in 4-H tend to be short-term leaders, and (4) if an individual had been a 4-H member for five or more years, that person tends to be a long-term leader, (5) persons who helped organize a 4-H Club and then volunteered to be leaders tend to be long-term leaders, (6) leaders who lead more than one project group tend to be long-term leaders, (7) leaders who received assistance from the parents concerning 4-H work tend to be long-term leaders, (8) leaders who visited homes of the 4-H members in their project group tend to be long-term leaders, (9) if the individual is a reader of the National 4-H New, that person tends to be a long-term leader, (10) leaders who feel that they need more help from Extension than they get, concerning teaching aids, tend to be short-term leaders.

This study found numerical differences for five other factors. Although these differences were not statistically significant at the five percent level, they were nearly so.

(1) Eighty-two percent of the long-term 4-H leaders and fify-two percent of the short-term leaders had a farm background, (2) three percent of the long-term and twenty-nine percent of the short-term leaders were recruited by the agent, (3) Seventy-eight percent of the long-term and forty-eight percent of the short-term leaders reported good attendance at 4-H meetings, (4) twice as many of the long-term as short-term leaders had the assistance of a junior leader with their project group, (5) sixty-five percent of the long-term leaders had a hobby related to the project they had. This was true with thirty-six percent of the short-term leaders.

The "reasons for resigning" given most often by short-term leaders were: (1) too busy, (2) 4-H members did not cooperate, (3) parents did not cooperate.

The " reasons for continuing" given most often by long-term leaders were: (1) enjoy working with youth, (2) 4-H is very worthwhile program, (3) leaders are needed to help youth, (4) 4-H is an educational program, and (5) feel satisfaction in helping youth.

WILLIAMS, JOHN R. The Agricultural College Alumni; Who They Are, What They Are Doing, and Their Opinions About the Educational Programs of the College. Staff study, 1965, University of Arizona, 45 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. --To learn more about students who enrolled as freshmen in the College of Agriculture, including their backgrounds, parents occupations, leadership experiences, high school preparation, factors that influenced them to enroll in the college and select their major, academic performance, occupations entered, salary earned, etc., to learn their opinions as to the effectiveness of the curriculums followed in preparing them for the responsibilities of their present job, and to get suggestions for improving the curriculums in the college.

Method. --The records of all 808 former students who enrolled as freshmen in the College of Agriculture during the 12 year period from September 1946 to September 1957 were studied and a questionnaire mailed to each one to collect additional information on their present occupations and their opinions and suggestions about the programs of instruction in the college.

Findings. --Slightly more than one-fourth of the 808 former students indicated that their fathers earned their living in production agriculture, six percent listed occupations for their parents that were related to production agriculture, while two-thirds listed occupations that were not related to agriculture. More than three-fourths had never belonged to either a 4-H Club or enrolled in vocational agriculture.

Only slightly more than one-fourth of the former freshmen had decided on their field of vocational specialization before enrolling in the college and almost one-fourth had still not decided by the time they completed college. Factors that influenced these students to select their field of specialization were (1) work experience, (2) parents desire or approval and, (3) availability of job.

Almost forty-two percent of all freshmen who enrolled graduated from the college. More than one-half of the students surveyed reported they have taken additional technical or professional training since leaving the college.

Almost three-fourths of the students went into agricultural occupations, but only fifty-two percent were employed in jobs associated with their major field of study in college. More than one-fourth of them earn an income in excess of $12,500 per year while only eight percent received less than $5,000 per year.

More than one-half indicated that they believe the curriculum they followed in the college prepared them "very well" or "fairly well" for the responsibilities of their present occupation. However, more than one-third of the group suggested that the curriculum should include more units in (1) technical subject matter, (2) economics, (3) practical experience in production agriculture and (4) English and speech. About three-fifths said that if they were starting their college education all over again, they would attend the College of Agriculture at the University of Arizona.

COLORADO

BOOKER, WILLIAM E. College Freshmen Drop-outs in Agriculture at Alabama Agricultural and Mechanical College, Normal, Alabama 1957-1962. Master's Report M.E., 1965. Colorado State University. 62 p. Library, Colorado State University, Fort Collins.

Purpose. --The primary purpose of this study was to discover what factors influenced freshman students to drop out of the Division of Agriculture.

Method. --The study included 55 freshmen male students who had dropped out of the Division of Agriculture at Alabama Agricultural and Mechanical College during the school years 1957-1962. Data for the study were obtained from a survey by means of a questionnaire, personal interviews and college records.

Findings. --It was found that the five major factors influencing students to drop from the division of agriculture in descending order of importance were: (1) Subject matter too difficult, (2) Requested to leave school by school authorities, (3) Financial problems, (4) Personal adjustment poor, (5) Lure of job indicated by 31, 31, 40, 25.5 and 25.5 per cent of the respondents respectively. The factors (1) home sickness, (2) love problems, (3) transferred to another college and (4) death in the family as indicated by the 55 respondents

were not factors of any consequence influencing the drop outs.

Of the 55 respondents, only eight had continued their education in a college of university after dropping out of agriculture. Only one had transferred to another college. SANDSTEDT, NEIL R. Drop-Outs in Agriculture. Master's Report, M. Ed., 1965. Colorado State University. 89 p. Library, Colorado State University, Fort Collins.

Purpose. --This study was made to determine the factors influencing students to drop from the agricultural curriculum at Northeastern Junior College before completing the prescribed course of study.

Method. --Data for this study was collected from the records of the registrar and by means of a questionnaire completed by 75 drop-outs for the years 1958 to 1964.

Findings. --Data indicated that the 75 respondents, 33 per cent were currently engaged in production agriculture, 17 per cent were students, 15 per cent were serving in the armed services and 35 per cent were engaged in off-farm jobs.

From a comparison of occupations it was found that 20 per cent of the 75 respondents engaged in production agriculture had fathers that were likewise engaged.

Grade averages of 33 per cent of the respondents were "C" or above, 24 per cent indicated probationary status and 43 per cent indicated academic suspension.

Respondents who dropped out during the freshman year totaled 57 per cent and 43 per cent dropped as sophomores.

Factors listed in order of importance which influenced the 75 respondents to drop out were: lack of vocational objective; difficulty of college courses; academic suspension transferred to another college; no financial assistance available from parents; needed to be home to work and inadequate high school preparation.

Of lesser importance were: offered a job opportunity; too much time spent on social activities; poor study conditions in room; class room facilities and farm or business could not support college.

Quality of instruction in agriculture was not found to be a factor of consequence.

NEW MEXICO

AUSTIN, KEITH. Attitudes and Values of New Mexico USDA Defense Board Members About Rural Civil Defense. Problem, M.A. Agricultural and Extension Education 1965, New Mexico State University, University Park, New Mexico.

Purpose. --The purpose of the study was to determine the attitudes and values of New Mexico's Cooperative Extension Service, Agricultural Stabilization and Conservation Service, Farmers Home Administration, Soil Conservation Service, and Forest Service employees about rural civil defense.

Method. --Data were collected through questionnaraires completed by defense board members at a statewide meeting. The state chairman explained the purpose of the questionnaires and administered them to board members. Thirty-seven ASCS thirty SCS, twenty-six CES, and fourteen FS personnel participated in the study.

Findings. --It was found that a bare majority of board members believed every county should have a paid civil defense director. Board members felt that the Federal Government should help finance community shelters in rural areas. They strongly agreed that individual families should provide survival food, water, medical supplies and shelters. Eighty-three per cent of the respondents did not feel that USDA employees were

sufficiently trained and prepared for assisting people in emergencies, and a corresponding percentage stated they would take a course in civil defense if it were offered. Emergency preparedness as a 4-H project ranked fourth in value in a listing of five types of 4-H projects: automotive project, livestock project, home management project, emergency preparedness project, and public speaking project.

OREGON

JOHNSON, JOHN RICHARD. Agricultural Occupations in Clatsop County. Thesis Ed. M., 1965. Oregon State University. 68 p. Library, Oregon State University, Corvallis.

Purpose. --The primary purpose was to determine the present and emerging agricultural occupations in Clatsop County and Provide a basis for broadening and upgrading the course offerings at Knappa High School.

Method. --All agricultural firms in the county were considered. Lists of firms were secured from the county agricultural agent's mailing list, the county directory, and the county telephone directories. The firms were then grouped. The interview technique was employed to gather the desired information from a random sample of each group.

Findings. --Agriculture in Clatsop County involves many different kinds of firms. There are opportunities for employment for both mem and women.

Previous farm experience and/or training in vocational agriculture does increase one's chances of being employed in the agricultural occupations.

The largest number employed in the agricultural occupations have only a high school education.

Further, most employers are willing to provide on-the-job training if employees have the basic background knowledge for the training.

The vocational agricultural program should be expanded to include students who are planning to enter off-farm agricultural occupations. Also, off-farm agricultural work experience should be accepatable in lieu of the supervised farming program.

KRUEGER, AUGUST W. JR. The Principle Approach in Teaching Mechanical Technology in Agriculture. Master's Thesis, 1965. Oregon State University. 78 p. Library, Oregon State University, Corvallis.

Purpose. --The purpose of this study was to identify, classify, and supplement principles, or statements of generalized knowledge which apply to Farm Buildings and Conveniences, one of the five generally accepted areas of vocational agriculture instruction in mechanical technology, and organize them in such a way as to serve as a basis for instruction.

Method. --A tentative set of principles, sub-principles, supporting information, and suggestions for teaching was prepared by the investigator, based on his own personal

knowledge and a review of pertinent literature. Subject matter experts and teacher trainers at the University level participated in an initial review and revision, after which the material was submitted to vocational agriculture teachers in the field for further review and experimental trials in vocational agriculture classes. A secondary revision was based upon opinions and suggestions of these teachers after classroom trials.

Findings. --Interviews held with vocational agriculture teachers after trying portions of the material with their classes served to support the following conclusions: (1) That principles applicable to mechanical technology can be identified, classified, and supplemented in such a way as to be useful in teaching. (2) That subject matter specialists and vocational agriculture teachers can contribute to such identification, classification, and supplementation with little fundamental disagreement. (3) That there is a need for such bodies of information in all areas of mechanical technology instruction to assist vocational agriculture teachers in teaching principles and to increase their teaching efficience. (4) That while vocational agriculture teachers can contribute to such bodies of information, few if any have the time or resources to undertake their preparation singlehandedly.

YOSHIMOTO, STANLEY H. Land Laboratories in the Public Secondary Schools of Hawaii. Thesis, Ed.M., 1965, Oregon State University, Corvallis.

Purpose. --To define the term school land laboratory, to discover the present status of school land laboratories in Hawaii, to conduct a comparative analysis between school land laboratories and school farms, and to identify related problems in the area of school land utilization in agricultural education in Hawaii.

Method. --School farm and land laboratory problems in the State of Hawaii were examined in relation to the problems of school farms and land laboratories throughout the United States. Correlation studies of the various factors involved in the study of Hawaii's land laboratory situation were developed and analyzed. The Rank Order method of computing coefficients was used.

Findings. --Agriculture teachers who cooperated in this study assisted in differentiating school farms from school land laboratories. Dual facilities were reported by a high percentage of the teachers. Teachers from rural schools reported a higher percentage of school land as school farm land. Inversely, teachers from urban schools reported a higher percentage of school land as a part of the school land laboratory.

Negative coefficients were calculated for the correlation between vocational agriculture enrollment, and size and scope of land laboratories and/or school farms.

School farms and land laboratories have also served non-agriculture students. Eighty percent of agriculture teachers served as hosts to students and teachers from other schools. The possibilities for sharing the school land laboratory with science education departments were also shown.

UTAH

FARRER, WELLS L. An Occupational Survey of Former Students of Vocational Agriculture of Beaver High School. Thesis, M.S., 1964, Utah State University, 37 p. U S.U. Library and Ag. Education Library, Utah State University, Logan.

Purpose. --To find the present occupational status of former students of vocational agriculture of Beaver High School for an eighteen year period, 1945-63. To determine the number and percentage of former students employed in farming, off-farm ag. occupations, professional ag. occupations, and non ag. occupations.

Method. --A list of names of all former students of vocational agriculture of Beaver High School during the period 1945-63, was obtained. Information as to the present occupation was determined by contacting the student, parents, relatives, or friends. Occupation headings were as follows: 1. Farming 2. Part-time farming 3. Professional ag. 4. Off-farm ag. occupations 5. Farm labor 6. Non-farm occupations. Survey forms were used to collect the above information.

Findings. --There were 333 students who were available for the survey (those deceased or on missions for the LDS Church were omitteed). Of the 333 former students who had enrolled in vocational agriculture, 74, or 22.2% were employed in full time farming. Fifty-eight or 17.4% were in part

farming, 6.6% were in professional ag. occupations, 5.7% were in off-farm ag. occupations. The agricultural and farming occupations included 53.75% of the former students. The total number of students in non-farming occupations was 154 or 46.25%.

OLSEN, LEE E. A Study of Off-Farm Agricultural Occupations in North Davis, Morgan, and Weber Counties in Utah. Thesis, M.S. 1965, 72 p. U.S.U. Library and Ag. Education Library, Utah State University, Logan.

Purpose. --To identify the off-farm agricultural jobs and employment opportunities in North Davis, Morgan, and Weber Counties. To identify present and emerging off-farm agricultural occupations and to determine the present and anticipated numbers of employees needed within two and five years from now.

Method. --After meeting with heads of major companies, staff members of the department of Agricultural Education and the employment service bureau, form 1 and form 2 questionnaires were used and personal interviews were made to 121 employers. This included businesses, florists, nureries, forestry, game management, recreation parks, and ornamental horticulture establishments.

Findings. --The total work force for the area studied was 54,600 persons employed and 3,800 persons unemployed. Of the employed persons there were 3,538. This represented only 6.5% of the total work force of the Ogden labor market. Of the 3,538 employed, 1,522 were part time employees, most of whom worked in food canning plants or poultry processing plants. Among those employed in off-farm ag. occupations, there was an annual turn over of 1,090 persons per year. Employers estimated that within five years they would need an additional 436 workers.

PRADJADISASTRA, AGUS SUNJOTO Proposed Curriculum for Senior Agricultural High Schools of Indonesia. Thesis, M.S. 1965, Utah State University. 84 p. U.S.U. and Ag. Education Libraries, Utah State University, Logan.

Purpose. --To study the present curriculum used in the Agricultural High Schools of Indonesia and to present some innovations that might be adopted to assist in promoting practical programs in vocational agriculture.

Method. --The curriculum for senior ag. high schools of Indonesia, was studied intensively and courses of study and other agricultural programs used in the United States were carefully analyzed so that the important phases of the Indonesian

program could be continued and that practical applications to the programs could be incorporated into the Indonesian curriculum.

Findings. --By following a sound program of production and management and by including opportunities for practical experiences for additional students it should be possible to improve the agricultural picture in the great nation of Indonesia.

WIRAATMADJA, RUJAT. A Suggested Adaptation of Future Farmers of America for the Students of Agricultural Senior High Schools in Indonesia. Thesis, M.S. 1965, Utah State University, 113 p. U.S.U. and Ag. Education Libraries, Utah State University, Logan.

Purpose. --To develop a leadership and practical experience program that would stimulate and motivate the agricultural program for the students of agricultural senior high schools in Indonesia.

Method. --After visiting numerous local FFA Chapters, the State and National FFA Conventions, assisting with the local and area contests, the author decided to work out a program that would be acceptable in Indonesia.

Findings. --It was difficult to draw up a program to meet the needs of the Indonesian students and to stimulate ag. production through guided leadership. As a result of the study, a constitution and by-laws were drawn up and recommendations were made for establishing the FFI.

WASHINGTON

TAYLOR, HAROLD WAYNE. A Proposed Agriculture Curriculum for the Green River Community College. Thesis, M.S., 1965, Washington State University, 38 p. Holland Library, Washington State University, Pullman.

Purpose. --To determine the agricultural curriculum of the Green River College and the possible agriculture program that should be included in the curriculum for the 1965-66, 1966-67, 1967-68 school years.

Method. --Data were obtained from information compiled for a survey made of vocational agriculture students in the Green River Community College service area. Vocational agriculture teachers as well as agricultural businessmen of the area cooperated in the study. The latter included farmers, processors, feed and grain dealers, and equipment dealers. Interviews were also held with Washington State Employment Security Service. Data were also obtained from reports of the State Board for Vocational Education and other reports dealing with agricultural occupations. Personal interviews and a questionnaire were used in gathering information.

Findings. --Based on the findings it was recommended that for the community college transfer program, the following courses be offered in 1965-66: Animal Science 101,

Forestry 101, Dairy Science 209, Forestry 102, Agronomy 101, and Forestry 103, and for the school year 1966-67, Agricultural Economics 101, Forestry 101, Soils 201, Forestry 102, Horticulture 260, and Forestry 103. The purpose of the transfer courses in agriculture will be to give orientation but not to present professional training. Based on the findings it was also recomminded that the vocational-technical program in the fall of 1966 include Farm Mechanics, Forestry Aides, Landscape Nursery, Equipment Sales and Services, Equipment Service and Operation. This program could not be started until 1966 because shops and other facilities will not be available until then. It was also suggested that an adult program in agriculture be developed and that a close-working relationship between the community college and the high school vocational agriculture departments in the area be maintained.

GOEMMER, CHARLES RAYMOND. A Comparative Study of Teacher Programs of Work for the School Years 1954-55 and 1964-65 in Selected Vocational Agriculture Departments in Washington State. Thesis, M.S., 1965, Washington State University, 90 p. Holland Library, Washington State University, Pullman.

Purpose. --To secure information on how vocational agriculture instructors in twelve high schools in Washington state used their professional time in the school year 1964-65 in order to compare the present use of time with that of an earlier survey completed in 1954-55 in the same schools.

Method. --The teachers of twelve schools were asked to cooperate in this study. A single page report form for each month was developed which allowed entry for each area of work for each day. The areas of teacher responsibility included day school, adult school, supervising projects, community service, Future Farmers of America, professional improvement, promotion of program, and organization and improvement of equipment.

Findings. --A decrease in the hours of professional time devoted to vocational agriculture was noted. Teachers devoted 48 hours per week to professional duties, nearly three hours per week less than reported in the earlier study. Over 93% of a teacher time is spent in day school, Future Farmers of America, professional improvement activities, and supervising projects. The first three of these showed an increase over the 1954-55 period, but there was an alarming decrease in the percentage of time devoted to supervised farming by the

present group of teachers when compared to the earlier study. In some cases one third to one half of the teachers time is devoted to Future Farmers of America activities. It was concluded that the devotion of teachers of vocational agriculture to their professional responsibilities provides great hope for farm youth. However, it is important that the expression of this devotion in terms of time be under the teacher's critical surveillance in order to maximize its use.

BIRDSELL, LEE DANIEL JR. An Examination of Course Offerings in Selected Small High Schools. Thesis, M.S., 1955. Washington State University, 30 p. Holland Library, Washington State University, Pullman.

Purpose. --The purpose of this study was to examine course offerings in several selected small high schools in Whitman County to determine:

1. What percentage of the graduates enter a college or a university.
2. The graduation requirements.
3. What courses are being offered.
4. The average enrollment in academic and nonacademic courses.
5. What courses would be added if the principals were able to expand course offerings.

Method. --The study was limited to Whitman County, Washington. It involved high schools with four-year enrollments ranging from 63 to 125 students. All cooperating schools were located in rural communities where agriculture is the major source of income. The data were gathered by questionnaire which was sent to the principal of each cooperating school. Informal discussions were also held with administrators during the school year.

Findings. --Findings of this study indicate that:

1. A large percentage (74.44%) of the graduates of these small high schools enter a college or a university.
2. The graduation requirements of most schools are high than those prescribed by the State of Washington.
3. All of the schools were located in an agriculture area yet two schools did not offer courses in vocational agriculture.
4. Many schools alternated courses as a means of increasing course offerings.
5. Some of the schools are using the programmed instruction to offer courses to small numbers of students.
6. The average enrollment in academic courses is greater than in nonacademic.